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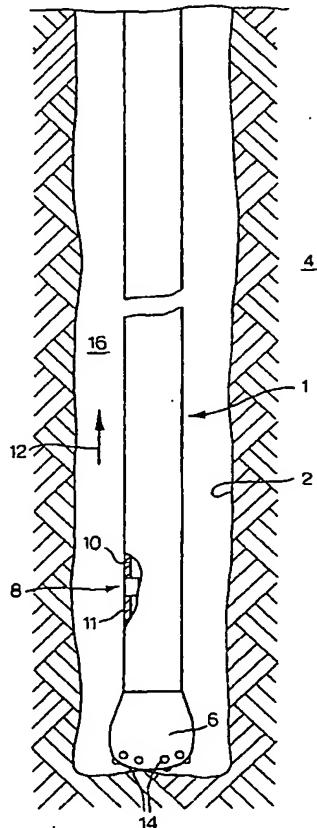
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(54) Title: SYSTEM FOR DETECTING GAS IN A WELLBORE DURING DRILLING

(57) Abstract: A system is provided for detecting the presence of formation gas in a stream of drilling fluid flowing through a wellbore during drilling of the wellbore. The system comprises at least one sensor chamber connectable to a drill string for drilling the wellbore, each sensor chamber containing a volume of a selected gas and having a membrane wall which allows passage of formation gas from the stream of drilling fluid into the sensor chamber. The sensor is arranged to detect a change of a selected characteristic of said volume of gas due to passage of formation gas from the stream of drilling fluid via the membrane wall into the sensor chamber.



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# INTERNATIONAL SEARCH REPORT

International Application No  
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**A. CLASSIFICATION OF SUBJECT MATTER**  
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According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, TULSA, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 469 917 A (WOLCOTT DUANE K) 28 November 1995 (1995-11-28) column 2, line 55 -column 3, line 6 column 3, line 24-45 column 3, line 58-62 figures 1,4 ---	1
A	US 5 351 532 A (HAGER ROBERT N) 4 October 1994 (1994-10-04) column 6, line 36-65 ---	1
A	WO 01 98630 A (SCHLUMBERGER CA LTD ;SCHLUMBERGER SERVICES PETROL (FR); JONES TIMO) 27 December 2001 (2001-12-27) the whole document ---	1

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

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